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8. The element substrate as claimed in claim 5, wherein the conductive layer is a made of transparent material.

9. The element substrate as claimed in claim 1, further comprising a first insulation layer located between the metal layer and the substrate.

10. The element substrate as claimed in claim 1, further comprising a second insulation layer located between the metal layer and the planarization layer, wherein the contact hole passing through the second insulation layer.

11. The element substrate as claimed in claim 5, further comprising a third insulation layer located between the conductive layer and the planarization layer.

12. A liquid-crystal display, comprising:

an first substrate;

an second substrate adjacent to the first substrate;

a liquid-crystal layer disposed between the first substrate and the second substrate, wherein the first substrate comprises:

a metal layer, disposed on the substrate and having a first width along a first direction; and

a planarization layer, disposed on the metal layer and having a first thickness along a second direction perpendicular to the first direction,

wherein the planarization layer comprises a top and a bottom, and the first thickness is a distance between the top and the bottom along the second direction in a pixel region,

wherein the planarization layer comprises a contact hole, the contact hole has a contiguous wall and a hole bottom, the hole bottom exposes the metal layer, and the hole bottom has a second width along the first direction,

wherein the first width and the second width satisfy the following equation:

$$2 * \left\{ \frac{L_2}{2} + \frac{(1-p)h}{\ln(p) \cdot \tan(1.5\theta)} \cdot \ln \left[\frac{-\tan\delta * (1-p)}{\ln(p) \cdot \tan(1.5\theta)} \right] \right\} - 3.8 \leq$$

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-continued

$$L_1 \leq 2 * \left\{ \frac{L_2}{2} + \frac{(1-p)h}{\ln(p) \cdot \tan(1.5\theta)} \cdot \ln \left[\frac{-\tan\delta * (1-p)}{\ln(p) \cdot \tan(1.5\theta)} \right] \right\} + 3.8$$

wherein L1 is the first width, L2 is the second width, h is the first thickness, δ is an angle between 5 degrees to 20 degrees, θ is an included angle between a straight line and an extension surface of the hole bottom, the straight line connects a reference point and a base point, the reference point and the base point are located on the contiguous wall, wherein a distance from the reference point to the bottom of the planarization layer along the second direction is 0.95h, the base point is located at the point where the contiguous wall is connected to the hole bottom, p is an adjustable parameter, and $0 < p \leq 0.1$.

13. The liquid-crystal display as claimed in claim 12, wherein the adjustable parameter p is 0.05.

14. The liquid-crystal display as claimed in claim 12, wherein the angle δ is smaller than 10 degrees, and the angle δ is greater than or equal to 5 degrees.

15. The liquid-crystal display as claimed in claim 12, wherein the angle greater than 10 degrees, and the angle δ is smaller than or equal to 20 degrees.

16. The liquid-crystal display as claimed in claim 12, further comprising a conductive layer disposed on the planarization layer, wherein the conductive layer is electrically connected to the metal layer via the contact hole.

17. The liquid-crystal display as claimed in claim 12, further comprising a first insulation layer located between the metal layer and the substrate.

18. The liquid-crystal display as claimed in claim 12, further comprising a second insulation layer located between the metal layer and the planarization layer, wherein the contact hole passing through the second insulation layer.

19. The liquid-crystal display as claimed in claim 16, further comprising a third insulation layer located between the conductive layer and the planarization layer.

20. The element substrate as claimed in claim 16, wherein the conductive layer is a made of transparent material.

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